REMARKS

This amendment is responsive to the Office Action of March 17, 2006. Reconsideration and allowance of claims 1-10 are requested.

The Office Action

Claims 1-9 stand rejected under 35 U.S.C. § 102 as being anticipated by **Shenoy** (WO 88/04058).

Amendments to the Drawings

As requested by the Examiner, labels have been added to Figure 1. Figures 2a, 2b, and 2c have been amended for greater clarity. Specifically, the longitudinal axis z of the Field-of-View 21 has been labeled in all three Figures, as has the longitudinal axis 23 of the scanned object 20. Further, the length of the slices 22 has been corrected to comply with the specification. For example, in the description of Figure 2a, at page 4, lines 6-9, the specification states that "Imaging occurs in a rectangular area, the length thereof is determined by the Field-of-View and the width thereof is determined by the so-called Rectangular Field-of-View (RFOV)..." The length of the slices 22 has been shortened in Figure 2a such that they fall inside of the rectangular Field-of-View as specified in the text. Similarly, the slices 22, 24 of Figure 2c have been adjusted so that they too coincide approximately with the area of the RFOV as stated in the same paragraph of the specification.

With these amendments, it is submitted that no new matter has been added and that the Figures are fully supported by the specification.

The Present Application

With reference to Figure 2b, when rotating the slices 22 such that they are perpendicular to the longitudinal axis 23 of an object, the center lines of the slices typically fall on the longitudinal axis 23 of the imaged object 20. This causes the ends of some of the slices to extend outside of the Rectangular Field-of-View 21. Data which falls outside of the Rectangular Field-of-View is subject to roll-over artifacts. SENSE, and other similar techniques are especially sensitive to artifacts.

To avoid rotating the corners of the imaged volume outside of the Field-of-View as in Figure 2b, Figure 2c keeps the slice centers on the z-axis and tips or rotates each slice about its stationary center. In this way, each slice stays fully within the Field-of-View.

The Reference of Record

Shenoy, like Figure 2b of the present application, rotates the centers of the images with the oblique axis. Note page 27, lines 14-18 and Figure 10 in which center 79, 164, and 163 are at an oblique angle.

The Claims Distinguish Patentably Over the References of Record

Claim 1 has been amended to emphasize that the centers of each slice lie along the longitudinal axis of the coordinate system and that the edges of the oblique slices are contained in the Field-of-View. By contrast, the centers of the slices of Shenoy lie on an oblique axis such that the edges of the slices are apt to extend outside of the Field-of-View. Accordingly, it is submitted that **claim 1 and claims 2-4 and 10 dependent therefrom** distinguish patentably and unobviously over the references of record.

Claim 5 has been amended to emphasize that the center positions of each slice and end portions of each slice lie along lines parallel to a longitudinal coordinate of the Cartesian coordinate system of the Field-of-View. By contrast, the centers (and presumably the edges) of Shenoy lie along an oblique axis. Accordingly, it submitted that **claim 5 and claim 6 dependent therefrom** distinguish patentably and unobviously over the references of record.

Claim 7 calls for the slices to have a staggered arrangement such that the beginning and end positions of each of the slices are approximately within the area covered by the slices before rotation. Note that in Figures 2a and 2c, the ends of the slices lie within the rectangular field-of-view 21. By contrast, in Figure 2b and Shenoy, when the centers of the slices are located on an oblique axis, the beginnings or ends are rotated out of the area covered by the original slices. Accordingly, it is submitted that **claim 7 and claims 8-9 dependent therefrom** distinguish patentably and unobviously over the references of record.

CONCLUSION

For the reasons set forth above, it is submitted that claims 1-10 (all claims) distinguish patentably over the references of record and meet all statutory requirements. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

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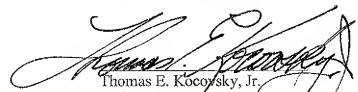

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